February 2009

PHASE I CERTIFICATION
(REVIEW)

EXAMPLE #1

Site Conditions: 3-bedroom house, no ground water or ledge encountered, percolation rate readings were as follows:

Date: Thurs. 3/15/97
Depth: 30”
Presoak: 2 hours-dry

TIME	READINGS
2:15	3”
2:25	5 1/2”
2:35	7”
2:45	8”
2:55	8 3/4”
3:05	9 1/2”
3:15	10 1/4”

1. What would be the design percolation rate? _____(min/in)

2. How much effective leaching area is required? _____(S.F.)

3. How many linear feet of 12” high trenches would be required? _____(ft)

4. How many linear feet of 30” wide trenches would be required? _____(ft)

5. What would be the minimum the center-to-center distance required between the 30” wide trenches? _____(ft)

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EXAMPLE #2

Site Conditions: 5-bedroom house, maximum ground water at 38", ledge found at 60", slope of the ground in the proposed leaching area = 4.5%, percolation rate readings were as follows:

DATE: Monday 2/27/96
DEPTH: 18"
PRESOAK: 4 hours

TIME	READINGS
3:55	3 1/4"
4:05	4 1/2"
4:15	5 1/8"
4:30	5 3/4"
4:42	6 1/8"
4:58	6 1/2"
5:20	7"

6. What would be the design percolation rate? _____(min/in)

7. What is the minimum size septic tank required? _____(gal)

8. How much effective leaching area is required? _____(SF)

9. How many linear feet of 12" galleries would be required? _____(ft)

10. What would be the maximum depth the bottom of the system can be below the original grade? _____(inches)

11. Using MLSS, the minimum spread of this system shall be:

MLSS = (HF)_____ X (FF)_____ X (PF)_____ = _____(ft)

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EXAMPLE #3

Site Conditions: 12,200 S.F. office building, maximum groundwater is 44" below grade, ledge is 7' below grade, the percolation rate is 25 min/inch at 24" depth.

12. What would be the total daily design flow? _____(gpd)

13. Is the area defined as of "Special Concern"? _____(Y/N)

14. Does this plan have to be sent to the State Health Department for review/approval? _____(Y/N)

15. How much effective leaching area is required? _____(S.F.)

16. How much effective leaching area would five (5) - 70' rows of High Capacity EnviroChambers provide? _____(S.F.)

17. An engineer proposes to utilize 30" galleries. The system will consist of four (4) rows. Each row will have 7 gallery units (each 8' long), surrounded by one foot of stone. How much effective leaching area would be credited for each row? _____(S.F.)
    Would the total system meet code requirements for sizing? _____(Y/N)

18. What is the maximum depth the bottom of the system can be below original grade? _____(inches)

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EXAMPLE #4

Site Conditions: 114 seat restaurant w/restrooms serving lunch and dinner, maximum ground water is at 40", no ledge was found, slope of ground in proposed area drops 7 feet across a 44 foot distance, the percolation rate is 6 min/inch at a 30" depth.

19. What would be the daily design flow? _____(gpd)

20. Is the area defined as of "Special Concern"? _____(Y/N)

21. Does the plan have to be sent to the State Health Department for review/ approval? _____(Y/N)

22. How much effective leaching area is required? _____(S.F.)

23. Would leaching pits be appropriate for this site? _____(Y/N)

24. An engineered plan is submitted. The plan indicates that 30" high gallery rows will be utilized. Each row will consist of 9 units (each 8' long). The entire row is surrounded by a foot of stone on the sides and ends. The cross-section on the plan shows a 27" concrete "tee-pee" type gallery, with 3" of stone placed above the units in order to increase the height to 30". What would be the effective leaching area for each of the above rows? _____(S.F.) Where should the perforated distribution pipe be placed? _____

25. The plan indicates that 8 of the above rows will be installed. Will this proposed system meet sizing requirements? _____(Y/N)

26. Using MLSS, the minimum spread of this system shall be:

    MLSS = (HF) _____ X (FF) _____ X (PF) _____ = _____(ft)

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Example #5

Site Conditions: Retail shopping center, no food services, maximum ground water at 38", ledge found at 60", slope within and downgrade of proposed leaching area = 12%, the percolation rate is 8 min./inch. Design Flow was determined to be 1,800 GPD.

27. How much effective leaching area is required? _____(S.F.)

28. Using MLSS, the minimum spread of this system shall be:

    MLSS = (HF) _____ X (FF) _____ X (PF) _____ = _____ (ft)

29. If you were the design engineer, what type of system would you install and how many linear feet of system would be needed to provide the necessary effective leaching area? _____

30. How would you configure the above system in order to provide the necessary spread required by MLSS?